

Application No.: 10/669,494
Docket No.: PE0688USNA

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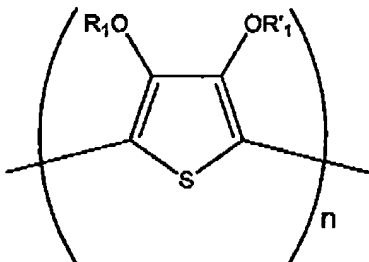
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Listing of Claims

1. (Currently Amended) A buffer layer composition comprising an aqueous dispersion of a polydioxothiophene and at least one colloid-forming polymeric acid wherein said composition has a pH greater than about 3.

2. (Currently Amended) A buffer layer composition according to Claim 1, wherein said polydioxothiophene has the structure:



wherein:

R₁ and R₁' are each independently selected from hydrogen and alkyl having 1 to 4 carbon atoms,
or R₁ and R₁' taken together form an alkylene chain having 1 to 4 carbon atoms, which may optionally be substituted by alkyl or aromatic groups having 1 to 12 carbon atoms, or a 1,2-cyclohexylene radical, and
n is greater than about 6.

3. (Currently Amended) A buffer composition according to Claim 2, wherein R₁ and R₁' together form an alkylene chain having 1 to 4 carbon atoms.

4. (Currently Amended) A buffer layer composition according to Claim 3, wherein said polydioxothiophene comprises poly(3,4-ethylenedioxothiophene).

5. (Currently Amended) A buffer layer composition according to Claim 1, wherein said colloid-forming polymeric acid is selected from polymeric sulfonic acids, polymeric carboxylic acids, and polymeric phosphoric acids.

6. (Currently Amended) A buffer layer composition according to Claim 1, wherein said polymeric acid comprises a polymeric sulfonic acid.

7. (Currently Amended) A buffer layer composition according to Claim 6, wherein said polymeric sulfonic acid is fluorinated.

8. (Currently Amended) A buffer layer composition according to Claim 6, wherein said polymeric sulfonic acid is perfluorinated.

9. (Currently Amended) A buffer layer composition according to Claim 6, wherein said polymeric sulfonic acid is a perfluoroalkylenesulfonic acid.

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10. (Currently Amended) A buffer layer composition according to Claim 9, wherein said polymeric sulfonic acid is perfluoroethylenesulfonic acid.

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Currently Amended) A buffer layer composition according to Claim 5, wherein said polymeric acid is a polymeric acrylic acid.

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Canceled)

31. (Canceled)

32. (Canceled)

33. (Canceled)

34. (Canceled)

35. (Canceled)

36. (Canceled)

37. (Currently Amended) A buffer layer composition comprising an aqueous dispersion of a polydioxothiophene, at least one colloid-forming polymeric acid, and an additional material selected from polymers, dyes, carbon nanotubes, metal nanowires, coating aids, organic and inorganic conductive inks and pastes, charge transport materials, crosslinking agents, and combinations thereof.

38. (Currently Amended) A buffer layer composition according to Claim 37 wherein the additional material is an electrically conductive polymer selected from polythiophenes, polyanilines, polypyrroles, polyamines, polyacetylenes, and combinations thereof.

39. (Canceled)

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40. (Canceled)
41. (Canceled)
42. (Canceled)
43. (Canceled)
44. (Canceled)
45. (Canceled)
46. (Canceled)
47. (Canceled)
48. (Currently Amended) A buffer layer composition of Claim 1, wherein the colloid-forming polymeric acid is selected from polymeric sulfonic acids, polymeric phosphoric acids, polymeric carboxylic acids, polymeric acrylic acids, and mixtures thereof.
49. (Canceled)
50. (Canceled)
51. (Canceled)
52. (Canceled)
53. (Canceled)
54. (Currently Amended) A buffer layer composition comprising an aqueous dispersion of a polythiophene and at least one colloid-forming polymeric acid.
55. (Canceled)
56. (Canceled)
57. (Canceled)